

72. *A New Species of Wentzelella from the Permian Limestone near Iwaizaki, Kitakami District, Northeast Japan.*

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(Comm. by H. YABE, M.I.A., Dec. 12, 1945.)

An examination of the corallian fossils deposited in the Institute of Geology and Palaeontology, Tohoku University in Sendai, resulted in the discovery of a characteristic species of *Wentzelella*. The attached label informed us that the specimen was collected by the members of the Institute from the well-known fossil locality of Iwaizaki, Miyagi Prefecture in the southern part of the Kitakami Mountainland.

Among the corallian fossils known from the middle part of the Permian limestone in the Kitakami Mountainland, *Wentzelella*, *Waagenophylum*, *Wentzeloides*¹⁾ and *Yatsengia*²⁾ are important horizon indicators. Of the mentioned genera, the first two are widely distributed in the Kitakami Mountainland and elsewhere in Japan. Among the species of *Wentzelella*, *timorica*,³⁾ *subtimorica*⁴⁾ and *kitakamiensis*⁵⁾ have been described or listed by many authors.

The present new species is closely related to "*paracanalifera*",⁶⁾ a species which was described and figured by Huang from the Chihhsia Limestone of Southern China. However, the present one is distinguishable from that species as stated below.

The precise stratigraphical position of the limestone from where the present species was derived is unknown, but it is very probable that it came from the

1) H. Yabe und M. Minato: *Wentzeloides maiyaensis* Yabe et Minato, gen. et sp. nov. aus dem Perm des Sud-Kitakami-Gebirges. Jap. Jour. Geol. Geogr., vol. XIX, p. 141, 1944.

2) M. Minato: Ueber die mittelpermischen Korallen aus dem Kitakami-Gebirge, mit eine Beschreibung von *Yatsengia*. Jour. Geol. Soc. Japan, vol. 51, p. 157, 1944.

3) S. Mabuti: On the Stratigraphical Position of the Iwaizaki Limestone (in Japanese). Saito Ho-on Kai Zihô, no. 101, 1936. Y. Onuki: On the Titibu System of Kesen-gun District, Iwate Prefecture, Kitakami Mountainland (in Japanese). Jour. Geol. Soc. Japan, Vol. 45, p. 48, 1938.

4) Y. Ozawa: Palaeontological and Stratigraphical Studies of the Permo-Carboniferous Limestone of Nagato, Pt. II, Palaeontology. Jour. Coll. Sci. Imp. Univ. Tokyo, vol. XLV, art. 6, p. 74, 1932.

5) H. Yabe and M. Minato: Eine neue Art von *Wentzelella* aus dem japanischen Perm. Jap. Jour. Geol. Geogr., vol. XIX, p. 139, 1944.

6) T. K. Huang: Permian Corals of Southern China. Pal. Sinica, Ser. B, vol. VII, Fasc. 2, p. 64, pl. V, fig. 2, 1932.

Fig. 1

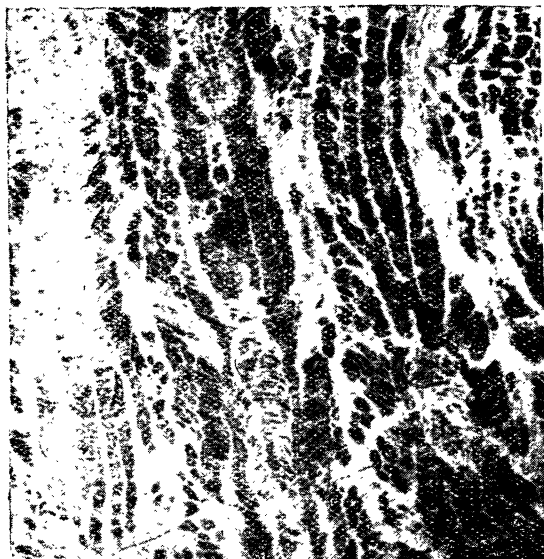


Fig. 2

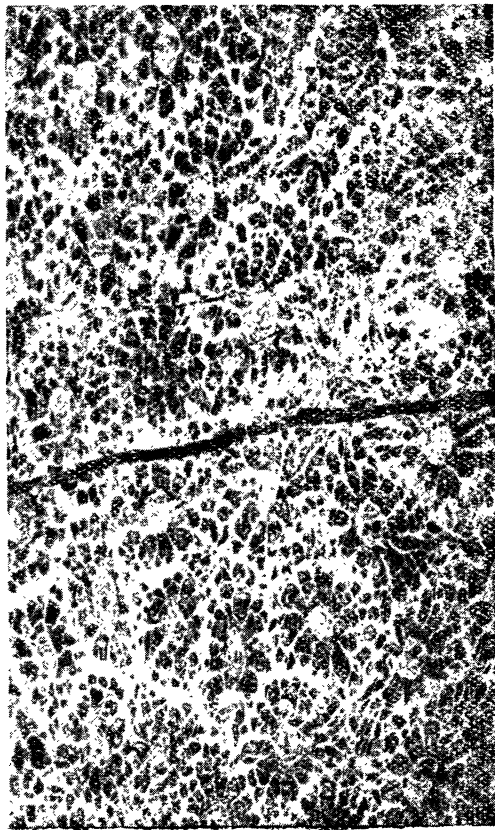
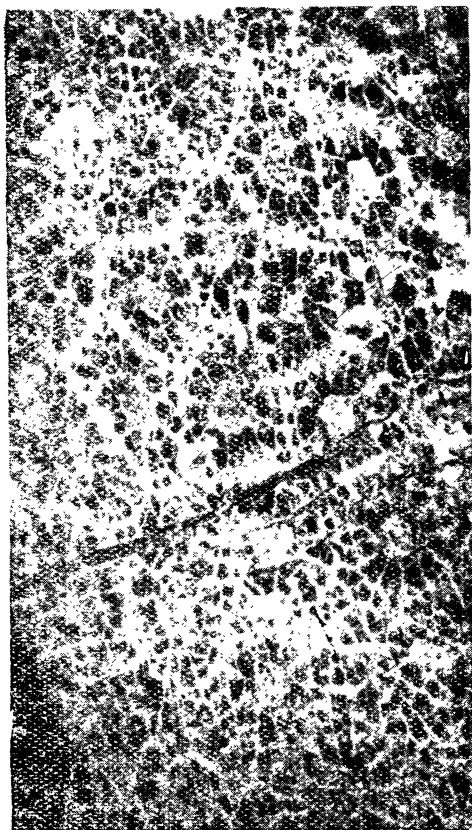
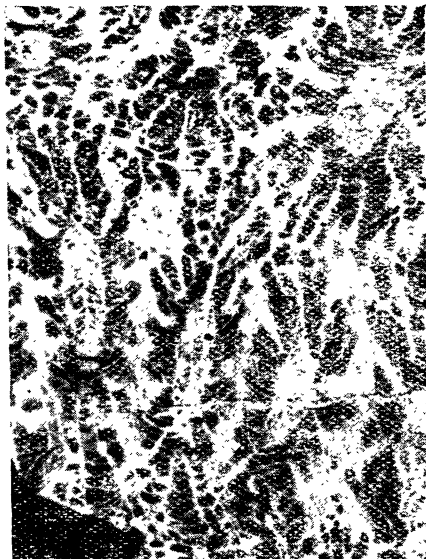


Fig. 3

Fig. 4

Wentzelella iwaizakiensis Yabe et Minato

Fig. 1, 2. Longitudinal section, ca. $\times 5$.

Fig. 3, 4. Transverse section, ca. $\times 5$.

fossil zone of *Waagenophyllum indicum* (Waagen and Wentzel), *Verbeekina verbeeki* (Geinitz) and *Yabeina shiraiwensis* Ozawa. From the same locality and probably the same stratigraphical horizon, the junior writer once reported on the occurrence of *Yatsengia kiangsuensis*? Huang.⁷⁾ It is now believed that *Yatsengia kiangsuensis* and *Wentzelella paracanalifera* are limited to the Chihsia stage in Southern China, while in the Japanese Permian, related species occur in a higher horizon, at least from the subdivision of the age on Fusulinids.



Fig. 5. Transverse section showing the gaps of wall, $\times 10$.
Wentzelella iwaizakiensis Yabe et Minato, sp. nov. Figs. 1-5.

Corallum massive, composed of small polygonal corallites measuring never more than 5 mm in diameter and about 4.5 mm in average. Wall moderately thick, usually zig-zag or flexuous in transverse section. Septa not numerous; major ones 9-11 in number, alternating with minor ones of same number. Major septa extend from outer wall, never connected directly with columella; the minor ones slightly thinner and much shorter than majors. Columella round or rather elliptical in transverse section, composed of septal lamellae, axial tabellae, and rarely also of median plate which is usually flexuous. Dissepiments arranged in two concentric rows in dissepimental zone.

7) M. Minato: Op. cit.

In longitudinal section, dissepiments arranged with convex side inwards. Tabularium occupied by columella and tabulae; the latter more or less flat, usually 11 in 0.27 mm. Median plate and axial tabellae recognizable in inner tabularium; axial tabellae ascending steeply towards median plate, numbering 16 in 0.16 mm.

Remarks: In the described specimen, the so-called "gaps" or "canals" are observed in the theca of some corallites; this is the most characteristic feature of this species. In the general size, smaller number of septa, existence of small canals with which the visceral part of the adjacent corallites appear to be in communication, this species more or less agrees with *Wentzelella paracanalifera* Huang from the Chihhsia limestone of China. However, in the Chinese species there are three or four rows of dissepiments and the septa are more numerous compared to the Japanese species.

There are two more species of *Wentzelella* provided with canals in their theca, they are, *Lonsdaleia canalifera*⁸⁾ and *L. socialis*⁹⁾ described by Mansuy from the *Productus* limestone of Indo-China. However, *iwazakiensis* differs from *canalifera* in the smaller size of corallites, and from *socialis* in the fewer number of communicating canals.

8) A. Sen: On the Development of the Genus *Waagenophyllum* Yabe and Hayasaka from the *Productus* Limestone Beds of the Salt Range. Quart. Jour. Geol. Soc. and Mining and Metallurgical Soc. India, vol. 3, p. 126, pl. IX, figs. 1-6, pl. X, figs. 1-2, 1931.

9) H. Mansuy: Faunes des calcaires à *Productus* du Cambodge. Mém. Serv. Géol. de l'Indochine, vol. II, fasc. IV, 1913.